

Bridge over Bird Creek
Avant
Osage County
Oklahoma

HAER No. OK-2

HAER
OKLA,
57-AVA,
1-

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
National Park Service
Rocky Mountain Regional Office
U. S. Department of the Interior
P. O. Box 25287
Denver, Colorado 80225

HAER
OKLA,
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HISTORIC AMERICAN ENGINEERING RECORD

Bridge over Bird Creek

HAER No. OK-2

Location: Spanning Bird Creek on the southwestern edge of the city of Avant, Osage County, Oklahoma

UTM: Zone 14, N4041700.E763135
Quad: Avant, Oklahoma

Date of Construction: 1914-1915; no major construction alterations have occurred; however, a stream gauging station and utility lines have been added at unknown dates on the east side of the bridge.

Builder/Designer: The Rochester Bridge Company of Rochester, Indiana

Present Owner: Osage County
c/o Board of County Commissioners
Osage County Courthouse
P. O. Box 87
Pawhuska, Oklahoma 74056

Present Use: Functions as a major crossing of Bird Creek for rural residents south of Avant into that city and access to state highways.

Significance: The bridge over Bird Creek at Avant is one of the earliest overhead truss bridges of known construction date and known construction company in the State of Oklahoma.

Project Information: Due to inadequate width, height and load carrying capacity of the Bird Creek Bridge at Avant, construction of a new bridge was proposed by the Osage County Commissioners. New bridge construction was initiated in 1985 on a new alignment some 900 feet east of the existing bridge location. This bridge project is funded and supervised by the Oklahoma Department of Transportation, utilizing bridge replacement funds of the Federal Highway Administration. The existing bridge is scheduled for removal in 1986.

Compiler: Roger S. Saunders
Oklahoma Department of Transportation
October 1985

Edited, Retyped
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PART 1. HISTORICAL INFORMATION

The bridge over Bird Creek at Avant in Osage County was built in 1914 and 1915. It is a Pratt overhead truss type and is one of the earliest known bridges of this type built in the State of Oklahoma. It is also one of the earliest known overhead truss bridges still having the original nameplate identifying the bridge builder.

An examination of the current state of knowledge concerning the early history of bridge building in Oklahoma will help place the bridge over Bird Creek at Avant in an historical perspective. In 1890, the territorial government of Oklahoma declared all section lines as public highways with right-of-way widths up to 66 feet. At this time, the basic responsibility for surveying, financing, constructing and maintaining highways and bridges was given to township and county governments. The result of this organization was a lack of any overall standards of road and bridge construction, no systematic attempt for a linked highway system, and intense competition between townships and the various county districts for road and bridge money. In addition, apparently there was considerable variation in the quality of steel bridges, since many of these bridges obtained the reputation of "tin" bridges.

With statehood coming to Oklahoma in 1907, little change occurred in the manner of road and bridge construction. The Constitution of Oklahoma established a Department of Highways, but gave it no real power for financing and conducting road and bridge construction. From 1907 to 1917, the Department of Highways was primarily involved in gathering statistics and developing standardized plans for roadways and bridges. Road and bridge construction was again primarily the responsibility of the townships and counties with little headway made in standardizing bridge construction. With the passage of the Federal Aid Highway Act of 1916 by Congress, the Oklahoma Legislature was forced to empower and finance the Department of Highways for building roads and bridges, in order to obtain Federal funds for the state highway system. However, responsibility for county roads and bridges was, and still is, with the county commissioners.

Data on the number, construction, design and history of early bridge building in the State of Oklahoma is limited. Sidney Suggs, the first director of the Oklahoma Department of Highways, tried to gather such data on bridges in the State in 1912 and was frustrated in this attempts. The following quotes from Suggs summarize the state of data and history of bridge building early in Oklahoma's development:

"It is impossible to determine without personal inspection of each bridge what the condition of bridges is in this state except in a general way. The reason for this is due to the fact that the laws of this state fail to provide for a record to be kept for each bridge erected, with data concerning its cost, type of construction and annual cost of maintenance...The result is that in most counties bridges are purchased upon plans and specifications of the bridge company which sells the bridge, and without any subsequent inspection to even be assured that the company has installed a bridge in accordance with its own plan and specifications...In a large majority of the state there is no county engineer and no plans...." (First Biennial Report of Department of Highways, January 1, 1913, pp. 28-31.)

This early bridge building in Oklahoma was marked by numerous townships and counties, each building bridges and contracting with numerous bridge building companies with few or no records kept of such transactions.

A bridge such as the Bird Creek Bridge is representative of this early statehood system of bridge construction by townships and counties contracting with bridge companies. The following historical log on the planning, financing, and construction of the bridge illustrates this system. In July 1914, the Osage County Surveyor was ordered to inspect a proposed bridge site near Avant and report his findings to the Osage County Commissioners. The day after the survey, The Avant Hustler announced a "large traffic bridge" was to be built to replace the first bridge across Bird Creek at Avant. The first bridge was a suspension bridge for pedestrian traffic only (the exact location of the first bridge is unknown). In September 1914, the Osage County Clerk was then ordered to advertise for bids for construction of the Bird Creek Bridge at Avant. In October 1914, the Osage County Commissioners unanimously approved a motion "that if the people of Avant will raise the sum of \$1500 to apply on contract for construction of one steel bridge across Bird Creek for the sum of \$10,895," the bridge would be built. This dollar amount was the highest listed for Osage County bridges in the County Commissioners' Proceedings from 1913 through August 1915. Finally, in November 1914, a contract with the Rochester Bridge Company was approved for construction of the bridge. Bridge construction extended in 1915, with claims for brick work appearing up to the April 15, 1915, County Commissioners' Proceedings.

The Rochester Bridge Company built the Avant bridge, as evidenced by nameplates which read:

Built By
The Rochester Bridge Co.
Rochester, Ind.
1914

Information contained in the Osage County Commissioners' Proceedings indicate the bridge company had an office in northern Oklahoma, since Osage County contracted for at least one bridge through "The Rochester Bridge Company of Bartlesville, Oklahoma." The Rochester Bridge Company was apparently a prolific bridge builder in northern Oklahoma. Contracts with the bridge company were numerous in Osage County from 1913 to 1914, with contracts for two bridges at Pond Creek and the Hominy Creek near Skiatook. Field research indicated the Hominy Creek bridge near Skiatook is still in place with the Rochester Bridge Company nameplate. This bridge is a Parker pony truss bridge.

Information on the parent company in Rochester, Indiana, was solicited through the Indiana Historical Society. A reply was received through the Archives Division of the Indiana Commission on Public Records. This reply states:

"Articles of Incorporation for the Rochester Bridge Company on file in the Archives Division show that the company was incorporated in the State of Indiana on March 19, 1896, for a period of 50 years. Its principal office was at Rochester, Fulton County, Indiana. The boards of directors were Frank N. Hoffman, Robert C. Wallace and Lorenzo C. Curtis, all of Rochester. Annual reports were filed until 1909 and at that time Wm. H. Deniston of Rochester was president of the company."

Research into the importance of this bridge to the citizens of Avant indicates that this bridge was a major transportation link for Avant. Avant was a developing town from 1906 through 1915, due to the discovery and development of petroleum resources, as evidenced in 1910 and 1911 magazine accounts of Avant. The Bird Creek Bridge at Avant provided a traffic bridge that served the industrial, commercial and residential needs of Avant and areas to the south of the town. In addition, there were apparently few other roads into Avant at this period. Both archival and field research has located only one other road into Avant at the time of bridge construction. This road is located west of Avant, and the bridge over Bird Creek at this location has a nameplate with a 1909 date. No state highway route is noted in the Oklahoma Department of Transportation records for Avant until 1924 when State Highway 11 was designated for Avant. Thus, the Bird creek bridge at Avant was an important local event in providing improved vehicular access for the industrial, commercial and residential development of the town.

PART II. ARCHITECTURAL AND ENGINEERING INFORMATION

The Bird Creek Bridge at Avant is a Pratt overhead truss bridge type. It is 401 feet 6 inches long with three truss spans, two being 150 feet 6 inches long and a single span of 100 feet 6 inches. The shortest span is located on the southern end of the bridge. Vertical clearance is 18 feet 6 inches, with a total height of 22 feet 6 inches. Bridge width is 15 feet 6 inches and accommodates a single lane of traffic only.

The bridge consists of a steel truss frame and stringers. All connections are pinned and bolted. The bridge has a wood deck. There are no known unusual or unique construction features associated with the bridge.

The bridge was built in 1914 by the Rochester Bridge Company of Rochester, Indiana, as evidenced by nameplates at both ends of the bridge structure. Original bridge plans are not on file with the Osage County Commissioners. Since the original construction, a stream gauging station and utility pipes have been added on the east side of the bridge. Exact dates of these additions are unknown.

PART III. SOURCES OF INFORMATION

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